

ABSTRACT OF THE DISCLOSURE

A method and apparatus for preventing the unintended activation of SMA devices by ambient temperatures that exceed the phase transition temperature of the SMA material itself. In one embodiment a passive actuator is coupled to an active actuator, each having identical arrangements of SMA wire, but connected in opposite directions to compensate for temperature drift that is not due to powered heating. A second embodiment consists of a passive SMA wire connected to a latch/release mechanism allowing the actuator itself to move rather than moving the load. In a third embodiment the passive wire is connected to a load coupling, so that the load itself is disconnected from the actuator when the passive wire reaches the phase transition temperature. The passive wire may be made of a lower-temperature wire than the active wires, so that the release action occurs long before the active wire begins to be moved by ambient temperature.